44TH TURBOMACHINERY & 31ST PUMP SYMPOSIA
HOUSTON, TEXAS | SEPTEMBER 14 – 17 2015
GEORGE R. BROWN CONVENTION CENTER

Revamp / Re-Rate Design Considerations

Pete Rasmussen – MHI
Dr. Ed Memmott – Dresser-Rand (Siemens)
Jim Sorokes – Dresser-Rand (Siemens)

Pete Rasmussen

- Retired from ExxonMobil as Chief Machinery Engineer with 32 years experience
- Early career with General Electric as Field Service Engineer
- Upstream and Midstream experience with compressors and drivers
- Onshore and Offshore operations and maintenance expertise
- Capital projects experience
- International experience
- Texas A&M Turbomachinery Advisory Committee, Emeritus
- ASME Fellow, 2011
- Several patents and papers in oil and gas machinery

Ed Memmott

- Principal Rotor Dynamic Engineer at Dresser-Rand
- 42 years of experience in the turbomachinery industry
- Doing rotor dynamics at Dresser-Rand in Olean, NY
- PhD in Mathematics from Syracuse University
- Authored or co-authored twenty-seven technical papers on rotor dynamics and several
- Presented or co-presented short courses and tutorials on rotor dynamics and the dynamic paragraphs of API 617
- He belongs to the ASME, the CMVA, the Vibration Institute, the MAA, and the SOME committee of API.
- On the API Task Force that wrote the 2rd Edition of API 684 and doing the same for the 3rd Ed. Of API 684

Jim Sorokes

- **Principal Engineer at Dresser-Rand**
- **39 years of experience in the turbomachinery industry**
- **Graduated from St. Bonaventure University in 1976**
- **Spent 28 years in the Aerodynamics Group**
  - Supervisor of Aerodynamics in 1984
  - Manager of Aero/Thermo Design Engineering in 2001
- **Named Manager of Development Engineering in 2004**
- **Promoted to principal engineer in 2005**
  - Responsible for projects related to compressor development and testing
  - Mentoring and training in the field of aerodynamic design, analysis, and testing
- **Member of AIAA, ASME, and the ASME Turbomachinery Committee**
- **Authored or co-authored over fifty+ technical papers**
- **Instructed seminars and tutorials at Texas A&M and Dresser-Rand**
- **Holds four U.S. patents and has several other patents pending**
- **Elected an ASME Fellow in 2008**

Outline

1. Why Uprate/Upgrade? Making The Business Case
2. Decision: New vs. Uprate/Revamp
3. Case Studies
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Revamp / Rerates of Centrifugal Compressors Rotordynamic Considerations

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